WHAT IS CLAIMED IS:

1. A printing apparatus for performing printing by discharging ink from an ink-jet printhead, having plural printing elements capable of discharging ink droplets in plural sizes, to a print medium, comprising:

input means for inputting print data;

count means for counting a number of concurrently-driven printing elements corresponding to the respective one of the plural sizes, based on the print data inputted by said input means;

determination means for determining a drive pulse applied to the concurrently-driven printing elements corresponding to the respective one of the plural sizes, based on the result of counting by said count means; and

print means for performing printing by applying the drive pulse determined by said determination means to the concurrently-driven printing elements.

2. The apparatus according to claim 1, wherein

the plural printing elements are divided into plural blocks,

said print means has time-divisional drive means for time-divisionally driving said plural printing elements in block units, and

said count means counts the number of concurrently-driven printing elements in the block units.

3. The apparatus according to claim 2, wherein said count means further includes:

a first counter that counts the number of concurrently-driven printing elements, among a first group of printing elements corresponding to discharge of first size of ink droplets, in block units; and

a second counter that counts the number of concurrently-driven printing elements, among a second group of printing elements corresponding to discharge of second size of ink droplets.

4. The apparatus according to claim 3, wherein said determination means determines a waveform of a double pulse applied to the first group of printing elements and the second group of printing elements, based on the result of counting by said first counter and the result of counting by said second counter.

5. The apparatus according to claim 4, wherein the waveform of the double pulse is determined by determining a main pulse width.

6. The apparatus according to claim 4, wherein said determination means includes:

first weighting means for weighting the result of counting by said first counter and the result of counting by said second counter, for determination of the waveform of the double pulse applied to the first group of printing elements; and

second weighting means for weighting the result of counting by said first counter and the result of counting by said second counter, for determination of the waveform of the double pulse applied to the second group of printing elements.

7. The apparatus according to claim 6, wherein the weighting by said first and second weighting means is performed in accordance with a ratio of a heater resistance of the first group of printing elements to that of the second group of printing elements.

8. The apparatus according to claim 6, further comprising storage means for storing plural main pulse widths,

and wherein said determination means accesses said storage means based on the result of weighting by said first weighting means to determine a main pulse width to be applied to the first group of printing elements, and accesses said storage means based on the

result of weighting by said second weighting means to determine a main pulse width to be applied to the second group of printing elements.

9. The apparatus according to claim 8, wherein the weighting by said first and second weighting means is performed in accordance with a ratio of a heater resistance of the first group of printing elements to that of the second group of printing elements.

10. The apparatus according to claim 1, wherein said ink-jet printhead has a nozzle array in which a first type of nozzle to discharge a first size of ink droplets and a second type of nozzle to discharge a second size of ink droplets are alternately arrayed.

11. The apparatus according to claim 10, wherein the first type of nozzle has a first type of electrothermal transducer to generate thermal energy to be supplied to ink for discharging the first size of ink droplets utilizing the thermal energy, and

the second type of nozzle has a second type of electrothermal transducer to generate thermal energy to be supplied to ink for discharging the second size of ink droplets utilizing the thermal energy.

12. A print control method for performing printing by discharging ink from an ink-jet printhead, having plural printing elements capable of discharging ink droplets in plural sizes, to a print medium, comprising:

an input step of inputting print data;

a count step of counting a number of concurrently-driven printing elements corresponding to the respective one of the plural sizes, based on the print data inputted at said input step;

a determination step of determining a drive pulse applied to the concurrently-driven printing elements corresponding to the respective one of the plural sizes, based on the result of counting at said count step; and

a control step of performing printing by applying the drive pulse determined at said determination step to the concurrently-driven printing elements.